A Case Study of Data Use, Project-Based Learning, and Language Development for ELLs

By Annette Shideler, Ed.D.

As of the 2014/15 school year, Nassau County had 12,165 English Language Learners (ELLs) K - 12 and Suffolk County had 16,252. Teachers, both mainstream and English as a New Language (ENL), are cognizant of the many languages and learning ability levels of ELLs. They struggle to address the challenges presented by this population of students. Districts with large or small ELL populations, face similar challenges: how can mainstream content be made comprehensible to ELLs to develop core content concepts; language skills; and empower students to learn the tools of technology?

Teachers are conscious of the many factors they have to balance on a daily basis: getting "through" the textbook; incorporating Common Core State Standards (CCSS); integrating with fidelity New York State curriculum modules; keeping accurate grade and attendance records; and being mindful of IEP and 504 special education regulations. It was with this in mind that I focused on the notion of systematizing a way for teachers to become intentional. By intentional, I mean knowing which of the ELA performance indicators are deemed most critical (i.e. most frequently tested); and, which of these are the most difficult for ELL students to master (as determined by test score data), and armed with the knowledge of which performance indicators ELLs readily master (as determined by test score data), teachers prioritize their classroom time.

Collaboratively developing strategies for teaching these newly identified, difficult performance indicators permits ELL teachers to be intentional in what they teach, how they teach it and in their alignment of teaching/learning time. This intentional approach parallels the Explicit Direct Instruction approach put forth by Hollingsworth, and Ybarra 2013 and strives to balance the use of standardized test data to determine critical ELA performance indicators in apportioning class time to teach listening, speaking, reading and writing concepts, and skills with technology.

The Process

Data-driven decision making is one of the strategies most widely endorsed as an effective way to improve education (Mandinach, 2015). Armed with data, teachers make informed decisions. Effective data literacy for teachers is hindered by the poor quality of the data, the lack of time necessary to evaluate data and a lack of cultural collaboration with beliefs in self-reflection and continuous improvement (Ronka et al. 2010; Gill et al. 2014. When teachers analyze data to inform their instruction, they identify the errors that need to be targeted instructionally. They prioritize their curriculum by identifying those skills in need of remediation. Subsequently, scores need to be cross-referenced with standardized test questions, and performance trend analysis. By cross-referencing multiple data points, we assure the validity of the interpretation.

An analysis of Common Core Performance Indicators (PI) with trend charts and maps can help determine which standards are the most frequently tested and therefore considered to be most important in terms of NYS curriculum (Figures 2 & 3). Indeed, upon review of the PIs which are most frequently tested over the three year span of the trend analysis, the following four anchor standards were consistently at the top of the list:

- Read closely to determine what the text says explicitly and make logical inferences from it…
- Determine central ideas or themes of a text and analyze their development…
- Interpret words and phrases as they are used in text…
- Assess how point of view or purpose shapes the content and style of a text…

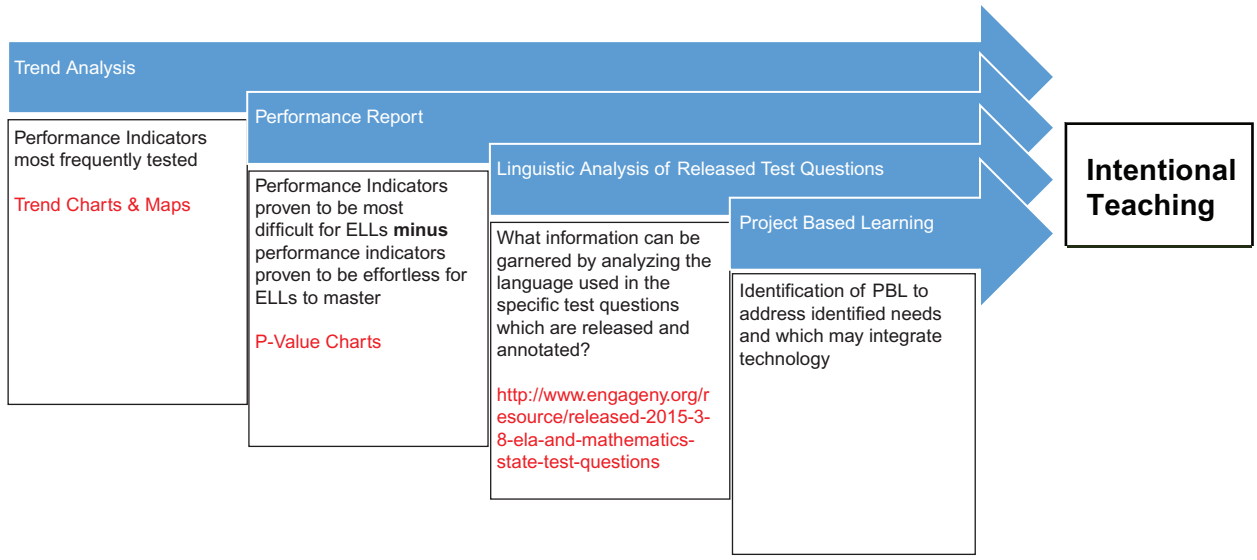
In Suffolk County, the Regional Information Center (RIC) provides multi-tiered data analysis of standardized test data to districts and regional educational leaders. Of the many reports they are able to compile, the P-Value report (a sample is provided in Figure 4. It was recently renamed to Performance Report with Gap Analysis.) compares the totality of the sub group sitting for an exam against the totality of the group taking the test and enables valid comparison of the results of groups of students. While Figure 4 addresses P-Value scores for the anchor standards and, as such, is a gross measure of the difference of mastery of the anchor standard between the two student groups, gaps of over 20 points are evident. These gaps are the signals of areas particularly difficult for the ELL student. Another report, also provided by the RIC, allows 'drilling deeper' which enables direct comparison on a test question by test question basis,

of the percentages of ENL students versus their mainstream peers who answer each question correctly.

Armed with the knowledge of which questions ELL students have most difficulty answering correctly and knowing which Performance Indicator (PI) that question was designed to address, the most difficult PIs become evident. This represents two of the three pieces of the puzzle. The last piece is to analyze the linguistic demand that might impede ELL students' success in this arena and to design 'intentional' curriculum to explicitly scaffold appropriate learning activities (Figure 1).

successful as a teacher. The problem however is that even though recounting stories is a common core state standard, it only represents 5% on the 2014 3rd grade ELA exam and only 7% on the same 2013 exam. Whereas, asking and answering questions to demonstrate understanding of a text, referring explicitly to the text as the basis for answers, which Ms. A rarely teaches because it is so difficult to teach to ELLs, is one of the most widely tested ELA standards. Since this standard appears both in Reading Informational Text, and Reading for Literature, one can argue that it represents 32% of the 2014 3rd grade ELA exam (refer to Figure 3).

Figure 1: Process Used to Generate Intentional Curriculum



It is normal for teachers to want to repeat previous activities they feel successful teaching. For example, Ms. A, a 3rd grade ENL classroom teacher, loves teaching sequencing. Her students love it when Ms. A teaches sequencing. They have really learned sequencing. The students feel successful as students and Ms. A feels

Mrs. A's curriculum is out of alignment. When teachers are able to become sufficiently data literate and have access to multiple points of data, their analysis within the context of their classroom curriculum becomes an integral part of instruction in the class.

Figure 2: Sample of Data Available in Trend Charts

Anchor Standard	Standard #	Grade 3 ELA	Item #s	Item #s	Item #s
Reading Standards for Informational Text			2013	2014	2015
Key Ideas and Details	Standard 1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	1, 5, 27, 29, 34, 37, CR46	7, 9, *27, *32,	14, 17, 31*, 36*
	Standard 2	Determine the main idea of a text; recount the key details and explain how they support the main idea.	6, 30, CR39, Essay47	*35	34*, 37*, CR45*
		Describe the relationship between a series of historical events			

In this case analysis, our approach has been to use data to create intentional curriculum. The data help establish priorities based upon Performance Indicators (PIs). The intentional approach has teachers analyze data, identify the specific performance indicators (PI) proven to be difficult, and isolate the linguistic demands to design a project-based learning (PBL) unit that exemplifies four strands. The first and foremost strand is that the PBL be based on mainstream content area curriculum. Secondly the project must also focus on the academic skills required for the identified PI. The third strand focuses on the language development needed based on analysis of the language demands of the actual standardized test questions. Lastly, the PBL must also integrate technology to enhance learning. In this case, integration of all four strands in the creation of essays and multimedia with iPads were embedded into an integrated iBooks using iBookAuthor.

The process, while multi-stepped, is straightforward. With access to Trend Analysis data we were able to determine which performance indicators were most frequently tested throughout multiple years (refer to Figure 2). Clearly, NYSED determined that these performance indicators were more essential and therefore more frequently tested. Armed with this data, we reviewed the P-Value scores of individual school districts, the consortium and/or all ELL students in Suffolk County. By comparing district data with county data, we were able to determine whether the low scores (or for that matter the higher scores) were due to the strength or weakness of the particular school district curriculum. The last step was to put both sets of data side by side to determine which performance indicators were both most heavily tested (Figure 3) and which were most difficult for the ELLs of the school district and/or ELLs in general (Figure 4).

Figure 3: 2014 Trend Map of Total 3rd Grade ELA Test provided by Eastern Suffolk BOCES RIC

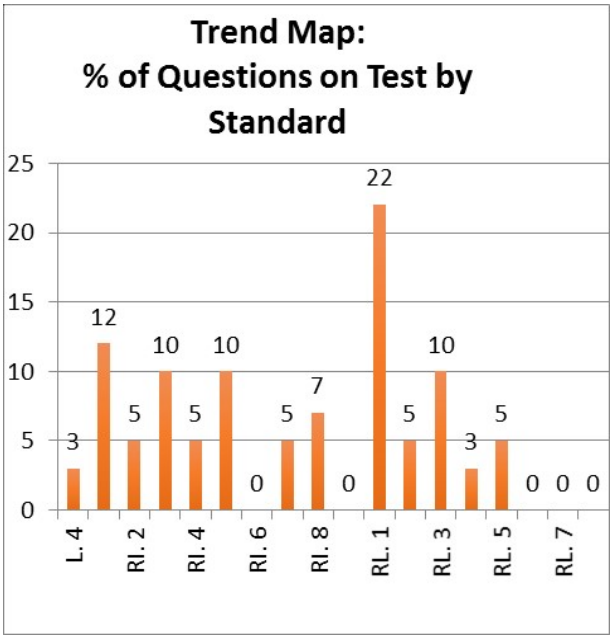
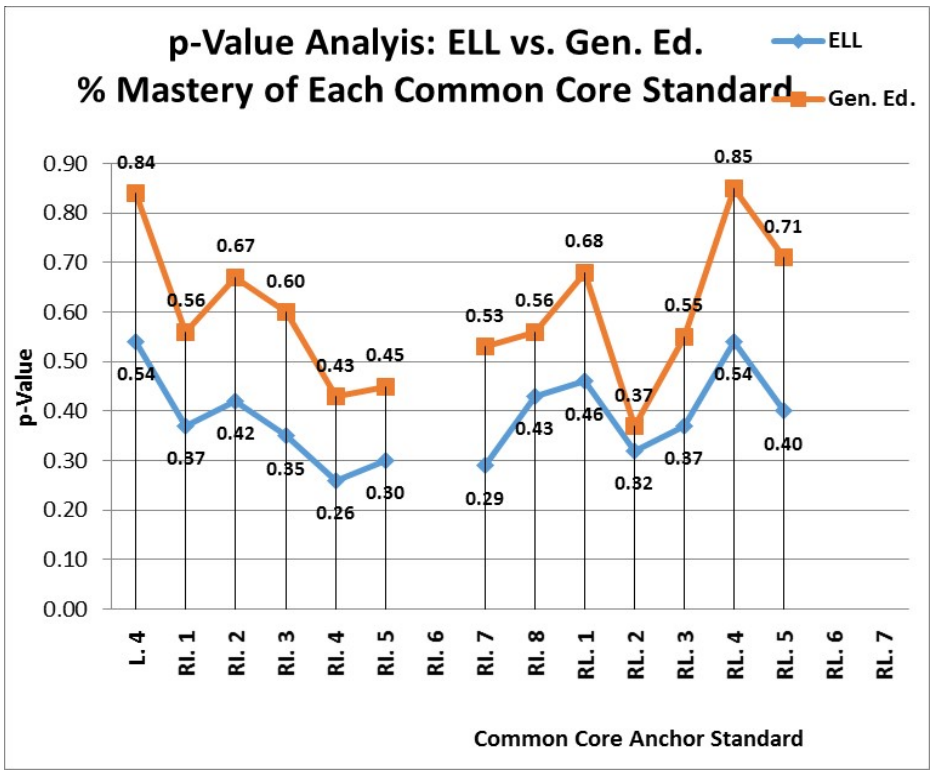


Figure 4: P-Value Chart comparing 2014 3rd Grade ELLs to Gen. Edu. Students on ELA test scores. Data made available by Eastern Suffolk BOCES RIC



Using this process for the English Language Arts exams 3-8, we identified specific curriculum indicators evidenced to be most difficult. Skills such as inferencing, point of view, finding supporting evidence and determining main idea are difficult skills for most ELL students. The curriculum of NYSED is such that each performance indicator spirals and becomes more difficult through the grades.

The Results

In working with elementary ELL teachers and secondary Special Education teachers in a district on Long Island, we identified the anchor standard Point of View as a common area of concern for both populations of students. Also, we implemented an integration of iPad technology for both groups as part of this teacher-training program. We decided to create an eBook focusing on point of view which involved integrating such multimedia as video, text and apps, such as *Educreation*.

In this case, the performance indicator (PI) Point of View for the third grade (RL/RI3.6, W3.1) calls for students to "distinguish their own point of view from that of the author, the narrator or those of the characters." In terms of writing, students are expected to write an opinion piece on a topic or text giving reasons that support a point of view.

We decided to ask K-3 elementary students to write stories of their favorite toys, which is a fairly straight-forward assignment. However, the heart of the assignment was that students had to write the same story as if they were the toys. Teachers taught linking words and phrases and the concepts of supporting your reasons for statements. Teachers and students discussed the novel assignment and developed oral facility with the linking words and the notion of answering the 'why' or 'what makes you say that' question. And then the students wrote…

> **Vanda's Perspective:** "My favorite toy is my American Girl doll Elsa. I like to sleep with her. Other times I like to play with her. I like to dress her and I like to do new hair styles on her. I feel happy to have her with me, I also feel safe when I am with her. I love her very much, when I am sad she makes me feel much better. Elsa has brown hair, white skates, white tights and a pink skirt. I like that she is pretty. I do not like when my sister takes my doll and loses it. I like to dress her up in different clothes. I do not like with people move her without telling me. That is why she is my favorite toy."
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> **Elsa's Perspective: "**I am Vanda's favorite doll Elsa. I play dress up with Vanda. I stay in the closet when Vanda goes out with her friends. Sometimes I go with Vanda to her friend's house. I feel happy when people touch me. I get scared when Vanda put me in the closet. I feel scared when Vanda leaves me on the floor with her dog. Sometimes Vanda's sister puts me in the snow. Usually I live in the closet. I like when Vanda watches t.v. with me, she is my favorite girl."

By the fifth grade, students are expected to be able to describe how a narrator's or speaker's point of view influences how events are described (recognize and describe how an author's background and culture affect his or her perspective. Concurrently students should be able to "analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent." By the eighth grade, students are to determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. Students are to understand why an author writes as she does. This is a level of abstraction difficult for ELLs of almost any linguistic level.

As we can see from just this one example, the same strand gets progressively more abstract and difficult. The more abstract the requirements of the strand, the more complex the grammatical structure that is required to satisfy the standard. Our challenge therefore is to identify concrete tasks; teach the complex language structure and mandate that our ELL students employ the language structure to complete the task.

In the school year 2013/14, we conducted an analysis of data and determined that students needed to focus more on non-fiction, specifically asking and answering questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers (RI/RL 1 which counted for 32% of the 2014 ELA 3rd grade test).

Teachers of K-12 ELL students were asked to challenge their students to write Connecting Journeys essays which focused students on linking their pasts with their futures. Compelling honesty and the chance to be heard were the hallmarks of these narratives. The book was also intended to be a teaching tool. To that end, each student submitting an essay was to also submit 5 comprehension questions to which readers of their essays would be required to "demonstrate understanding of a text." The following is but one example:

> "My name is Aida, but my Chinese friends call me Yi. Many Chinese believe that deciding a name for your child is very important because it relates to a person's fortune. So my parents took a long time to make my name up. At first they wanted to call me another name. However, one of my father's friends who was fortune teller told them to give me another name because the name they wanted would bring a bad fortune to me, so they changed it to Yi. That was how I got my name. I am always thinking about names for my future children. I want to give them a beautiful name.
>
> I come from China. Many people asked me why I came here. There are so many reasons why I came to America, the biggest one is the air pollution in China. I think that a healthy environment is a basic reason that you choose to stay in a country. If a country's environment is dangerous for your health and threatens your survival, you have to leave. The second reason is the government of China.
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> Why is the environment so bad? It is because China has a corrupt government. They do not have a moral standard to do things. Everyone is selfish. The oil that they refine, the food that they produce, and even the water they filter is not good. Many babies died because they drank poisonous milk powder, the rate of lung cancer is increasing at a faster rate than ever before.

This is all because of the government. The third reason is the education. Chinese students are going to school to take tests. What we learn is not even the truth. The teachers do not teach us how to think independently. These are the three main reasons why I left China.

Although, I love China, it is my homeland. I am sad that it doesn't look good now. The sky is grey and the major rivers are not clear anymore. Five years ago, when the industries that cause pollution were not developed yet, there was a blue sky over my head. I could stand on the top floor of our apartment building and see the Summer Palace clearly. Now what I see is only the smog. I was forced to leave China, even though I love it there. I hope it can go back to the way it was. I know there are many people who want China to be a big modern country like it is now. However, we have to provide a better environment before we develop it. In the future, I want to be a UN ambassador, to help China get better, as a United Nation. Because I think that one person's strength is too weak to help an entire country. I hope one day the blue sky comes back, there would be more pandas in Sichuan, buildings in Shanghai could be built taller and taller and the national flag in Beijing could seem more red than it is now"

Questions:

1. Why is deciding a name for your child so important in China?
2. Explain two reasons why A-wanted to come to America?
3. How has the environment in China changed during the last 5 years?
4. What is the problem with not teaching students how to think independently?
5. How can the Chinese government help to make the environment better?"

Excerpt From: *Tech service. Connecting Journeys 3. iBooks.*

The previous school year (2012/13) the same group of Consortia teachers engaged in a deep analysis of the Universal Declaration of Human Rights creating an eBook titled Human Rights Seen from the Eyes of Long Island's ELL Students. ELL students in 14 districts from across Long Island of different grades, and different language levels explored Human Rights on multiple levels. Using a dizzying diversity of media, students told us in autobiographical voices why certain of the Universal Human Rights struck more of a cord in their hearts than others.

Listen to one voice of a 1st grader:

"I think that the most important Human Right is the Freedom to Move. I believe this because if someone gets robbed they can go to another country to start a new life there and if you have family members there you can live with them. Also, you'll have money because your family can help you. That's why this is a good Human Right."

(This text is accompanied by a video of the child reading the text. His pride at reading the text perfectly is palpable.)

The creation of projects, such as eBooks, give students a voice where they didn't have one before. In a Southern Long Island school district, ELL students were being engaged with an abridged version of the story The Swiss Family Robinson (Wyss, 1812). In this case, NYSESLAT test scores for this particular Middle School had been too low for several years and the district called me in to work with the ENL teachers. We elected to write curriculum which was literature based. We wanted to engage in systematic, long term curriculum that could provide enough rigor to be a focal point for many activities. iPads, and also in this case iPods, were made available to these teachers while engaged in this literature curriculum.

The Swiss Family Robinson is all about surviving in a strange environment. Middle School ELL students of different levels were asked to consider advising newcomers to survive in this suburban area. When given free options as to their topics, students chose to write about how to stay out of gangs; what a bad idea it was to get pregnant when young, how to stay in the US legally, what companies are good to work for, what to do if you get physically lost in a store. We had no idea that Middle School children dealt with such profound issues. Students, who couldn't write, created videos (in both languages) to share their advice.

The Language Experience Approach (LEA) was the primary methodology to make the connection between speaking and reading. They wrote their essays; read them aloud for taping and, in some cases, created videos that could all be integrated into the eBook. Our students engaged with text when it was relevant to them; when it was comprehensible to them. Clearly this assignment made the bridge between the literature and the lives students were leading. The eBook was made available to students and their parents via smart phones.

Concurrently, with the same school, it was decided to create a curriculum unit based on *A Christmas Carol.* (Dickens, 1843). A local theatre group always had put on a wonderful show every year which would be a fitting culminating event for the unit. We had the support of the building principal who was pleased with the opportunity to expose the low economic students to live theater. We downloaded Disney episodes, which correlated to the chapters in the abridged text we were asking students to read. The teachers and I created mini multiple-choice question tests accessed via iPods using the free app named gFlash, so that students could demonstrate comprehension by mastering the questions. Our goal was to allow students to view the movies as often as they needed to achieve mastery of the multiple-choice questions. We changed the paradigm from watch the movie and then take the test to see what you missed; to watch the movie as often as you need to in order to be sure you have mastered all the content. The engagement of the students was profoundly different.

These same teachers and I also invited actors from the local theatre to speak ONLY with the ELL students in anticipation of viewing the live performance. The main actor, who had also been a High School ELA teacher, explained how A Christmas Carol had been written to highlight the abuse of child labor. He addressed the students, describing the living conditions of Industrial Revolution London with overcrowding and increased childhood diseases. When the forum opened to questions from the Middle School ELL students, it was our eyes that were opened. Students mentioned how they worked next to one of their parents, accomplished as much or more, and made half as much money. They shared how multiple families lived in the same house and each had limited, scheduled access to bathing facilities. They referenced how, as immigrants, they were moving to find work as was the case with the families in A Christmas Carol. They asked questions about gangs in the 1800s, as they (the students) were coping with them now. They told us of the same diseases mentioned in Christmas Carol showing up in their countries. We finished reading A Christmas Carol under a new light.

Using both initiatives, which were conducted in the same school year, the AMAO I increased by 9% and the school was in compliance; AMAO II also increased by 3% which put the school in compliance on this level as well. Perhaps more importantly, two weeks after the 'publication' of the eBook, the principal called me into her office. In a choked up voice, she said that previously the ELL students had walked through the Middle School halls with their heads down and the only time she saw them was for disciplinary reasons. Since the eBook and the Christmas Carol unit, she said that she saw the children walking through the halls with their heads up and they were joining sports clubs!

While Intentional curricula take time, they provide attempts to address all of NYS English Language Arts required curricula skills. P-value charts that compare ELL student performance to mainstream student performance of the county/district/school help identify those areas of particular concern. Cross referencing these results with trend analysis charts aid in the determination of the relative merit of time spent on a particular skill. We believe from Sheltered Instruction Observation Protocol (SIOP) methods that, particularly for ELL students, the relevance of the learning exercise determines the internalization of the skills and knowledge embedded in the activity.

In summary, my experiences with these teachers prove that they can develop successful, intentional syllabi. Beginning with a focus on standardized test trend analysis charts, in conjunction with P-Value data on student performance and project-based learning supporting specific curriculum objectives, ELL student performance levels have repeatedly been shown to significantly increase as a result of these strategic learning experiences.

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Shideler, Annette; Human Rights Seen from the Eyes of Long Island's ELL Students, provided upon request of this author.

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All student names have been changed to protect their identities… any grammatical errors included in student excerpts were maintained to be true to the student's voice.